

- . A liquid dishwashing detergent composition characterized by:
  - (a) from 0.0001% to 5%, of an amylase enzyme; and
  - (b) at least 0.5% of a suds booster;

wherein the composition has a pH of greater than 8 and the detergent composition has especially desirable greasy soil removal performance when used to clean heavily soiled kitchen articles.

- 2. A liquid dishwashing detergent composition according to Claim 1 is further characterized by an enzyme selected from the group consisting of cellulases, hemicellulases, peroxidases, proteases, gluco-amylases, lipases, cutinases, pectinases, xylanases, reductases, oxidases, phenoloxidases, lipoxygenases, ligninases, pullulanases, tannases, pentosanases, malanases, ß-glucanases, arabinosidases and mixtures thereof.
- 3. A liquid dishwashing detergent composition according to any of claims 1-2 wherein the amylase enzyme has a specific activity at least 25% higher than the specific activity of Termamylâ at a temperature range of 25°C to 55°C and at a pH value in the range of 8 to 10, measured by the Phadebasâ a-amylase activity assay.
- 4. A liquid dishwashing detergent composition according to any of claims 1-3 further characterized by a low molecular weight organic diamine having a pK1 and a pK2, wherein the pK1 and the pK2 of said diamine are both in the range of from 8.0 to 11.5;
- 5. A liquid dishwashing detergent composition according to any of claims 1-4 wherein said diamine is selected from the group consisting of:

$$R_2$$
  $N$   $C_x$   $A$   $C_v$   $N$   $R_4$   $R_5$ 

wherein R<sub>2</sub>, are independently selected from H, methyl, ethyl, and ethylene oxides; C<sub>x</sub> and C<sub>v</sub> are independently selected from methylene groups or branched alkyl groups where x+v is from 3 to 6; and A is optionally present and is selected from electron donating or withdrawing moieties chosen to adjust the diamine pKa's to the desired range; wherein if A is present, then both x and y must be 2 or greater.

- 6. A liquid dishwashing detergent composition according to any of claims 1-5 further characterized by a buffering agent and wherein the composition has a pH of from 10 to 11.5.
- 7. A liquid dishwashing detergent composition according to any of claims 1-6 wherein said diamine is selected from the group consisting of dimethyl aminopropyl amine, 1,6-hexane diamine, 1,3 propane diamine, 2-methyl 1,5 pentane diamine, 1,3-Pentanediamine, 1-methyl-diaminopropane, Jeffamine EDR-148, Isophorone diamine, 1,3-bis(methylamine)-cyclohexane and mixtures thereof.
- 8. A liquid dishwashing detergent composition according to any of claims 1-7 further characterized by an anionic surfactant and an amphoteric surfactant and wherein the mole ratio of said anionic surfactant to said amine oxide to said diamine is from 100:40:1 to 9:0.5:1.
- 9. A method for cleaning a substrate in a manual dishwashing operation characterized by the steps of:
  - (a) contacting the substrate with a liquid dishwashing detergent composition prepared according to any of claims 1-8; and
  - (b) allowing the detergent composition to remain in contact with the substrate for a sufficient time to provide effective cleaning benefits to the substrate.